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ARMED FORCES WEEK

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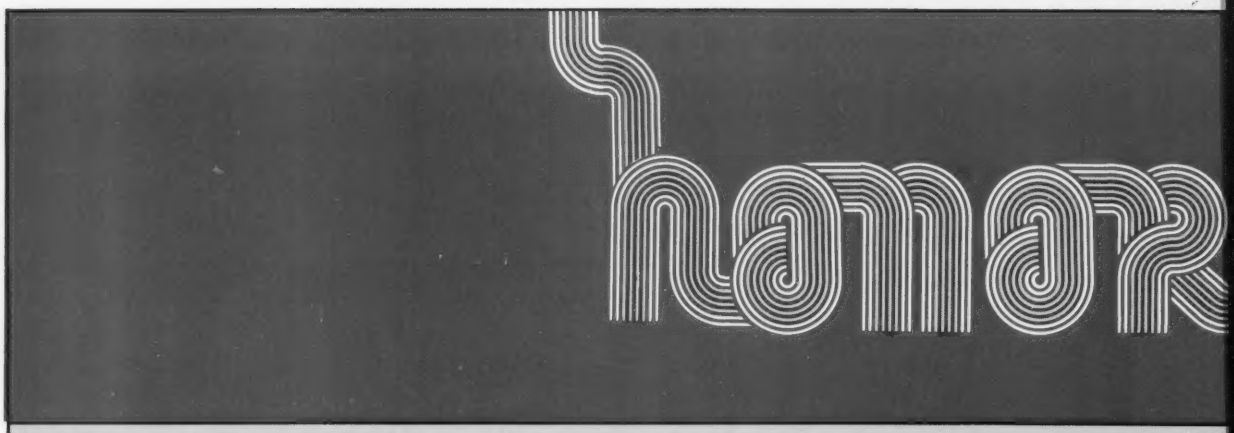


This year the traditional Armed Forces Day has been extended into a week-long observance, May 8-15. During this period, the Military Services (Army, Navy, Air Force, Marine Corps and Coast Guard) will pay tribute to the Nation on the occasion of its Bicentennial anniversary.

The theme for Armed Forces Week (AFW) is "Honor America." Military installations across the country, in coordination with neighboring civilian communities, are planning special ceremonies and exhibits in those communities. In Washington, D.C., daily observances will be held at the Washington Monument Grounds.

Department of Defense has issued the following guidance for implementation by the Military Services:

"Maximum active participation by all DoD components (Active, National Guard, and Reserve) is required. Planning should include roles for recruiters, ROTC units, and other small DoD elements that by virtue of mission are closely associated with civilian communities.

"This plan requires the military to conduct appropriate AFW observances in the civilian community throughout the week as discussed below. Extension of hospitality to the general public via open house or similar activities on military installations and ships is considered only a part of the overall program . . . .

"A key individual requirement is for active duty military personnel to wear their Class A uniform with authorized ribbons, medals, etc., wherever appropriate on and off duty throughout the week. Military personnel are expected to make a special effort to observe meticulously military customs and traditions. Additionally, officials of DoD and its components at all levels are encouraged to accept speaking engagements and other opportunities to demonstrate the Armed Forces tribute to the Nation. At the unit level, this could include explaining and demonstrating military customs and traditions (flag courtesies, saluting customs, etc.) before interested groups such as local schools, civil and service organizations, Boy/Girl Scouts, women's clubs, etc.

"Some programs/projects for implementation by DoD elements are:

- Military Units, Honor Guards, Drill Teams, Bands, etc., to participate in or conduct patriotic ceremonies

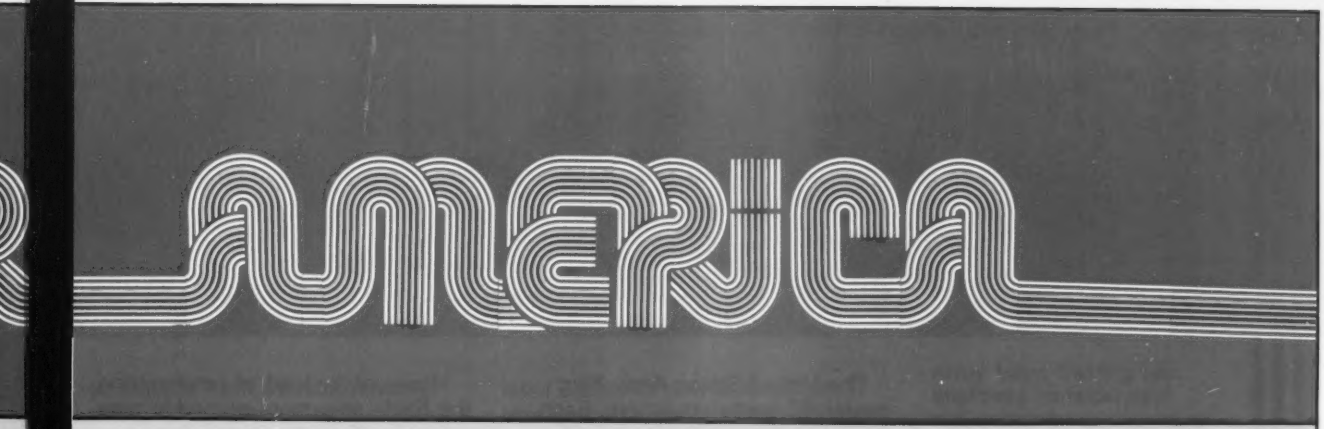
Celebration in the Capital

The Armed Forces stationed in the Nation's Capital will join together to commemorate the Nation's Bicentennial during Armed Forces Week.

All activities will be held at the Washington Monument Grounds. Following opening ceremonies May 8, visitors to the historical site will have the opportunity to observe a series of displays and exhibits depicting the Military Services' contributions to the development of our country.

Daily ceremonies will be conducted by elements of Service ceremonial units such as bands, drill teams, fifers and drummers, choral groups, etc.

Closing ceremonies on May 16 will include a special joint service retreat review.



at sites having local or broader historical significance.

● Concerted efforts to place military exhibits and ceremonies in civilian communities. Where feasible, this will include in addition to stock exhibits, items of military uniforms and equipment and other memorabilia of the type normally found in unit and installation museums.

Areas to be sought are places where crowds normally gather such as downtown malls and parks during lunch hour, other public parks and gathering places.

Displays can also be placed in local post offices, other federal buildings, state and local government buildings, public libraries, schools, etc.

● Military Service Recruiting Agencies to take advantage of the AFW observance by . . . arranging appropriate displays and activities in or near Recruiting Stations.

● Military Units to make their resources available during AFW to refurbish and/or improve accessibility to government owned historical sites provided there is no conflict with private enterprise, or competition with the civilian labor force. Where possible, military personnel and units should join with civic oriented organizations in these community service historical projects.

● Military Chaplains (Active and Reserve) to participate, in uniform, in civilian religious observances . . . .

● Parades

● Military installations and ships to set aside a day for open house or similar activity designed to give the public an opportunity to visit and become acquainted with the military community. Activities which emphasize violence such as hand to hand combat demonstrations are not considered appropriate. Military hosted social events at Officers, NCO, Enlisted Clubs and other appropriate facilities are recommended.

● Army, Navy and Marine Corps Units to repeat those 200th anniversary observances which are relevant.

"Coordination with local Bicentennial/Historical committees and other local organizations likely to be interested in above for participation and further suggestions is encouraged . . . ."

In summary, during this year of our Bicentennial, Servicemen and Servicewomen will Honor America during Armed Forces Week, May 8-15, 1976.

Historical Note

With the unification of the U.S. Armed Forces in 1947, efforts were made to consolidate the separate observances of Army, Navy, Marine Corps, and Air Force Days which were held on April 6, October 27, November 10, and September 18, respectively.

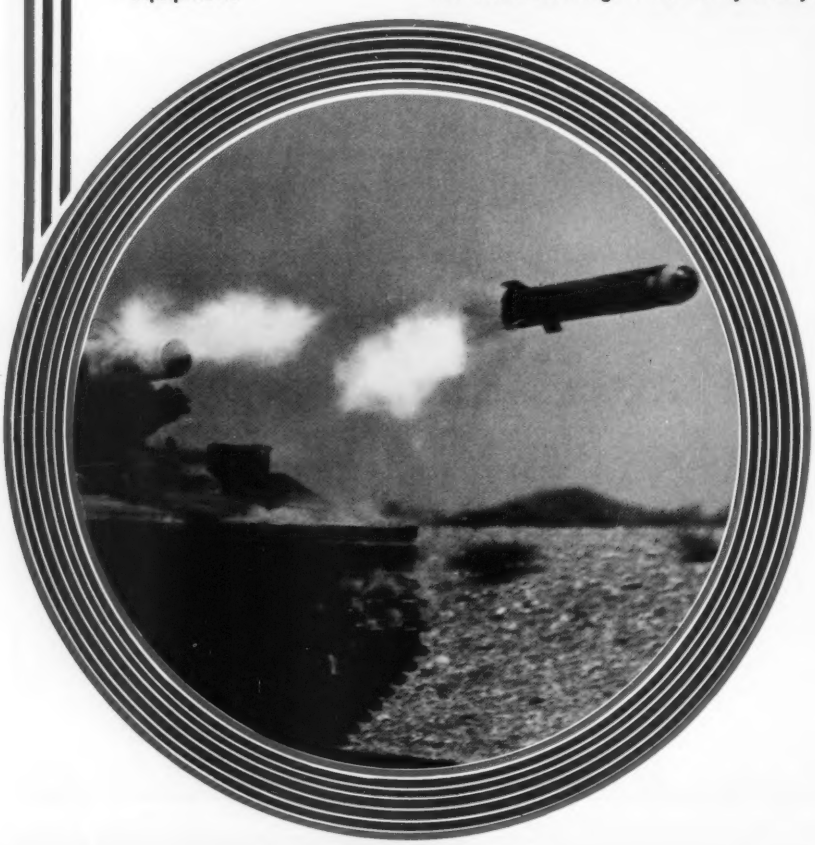
However, it was not until August 31, 1949, that Secretary of Defense Louis Johnson announced, with the approval of President Harry S. Truman, that "the third Saturday in May is to be designated 'Armed Forces Day'." Then, on February 28, 1950, President Truman issued a Presidential Proclamation proclaiming Saturday, May 20, 1950, as the first Armed Forces Day.

Since then, each succeeding President has reaffirmed by Presidential Proclamation the third Saturday of May as Armed Forces Day.

The Army tests its Sheridan-Shillelagh Weapon System at the Yuma Proving Grounds. The ability of an Army to be successful on a modern battlefield depends to a great extent upon the excellence of its equipment.

The United States Army Flag bears 167 battle streamers. Each streamer memorializes a specific time and place within the span of our Nation's two hundred year history. In each battle or campaign, American soldiers performed acts of conspicuous gallantry at risk of life, above and beyond the call of duty. The bravery of such men and the price they paid, has earned a legacy for those serving in the Army today.

However, instead of emphasizing the battle streamers earned in nine major conflicts, the Army story may also be told in terms of contributions in the fields of medicine, education, economics, sociology, disaster relief, civil works, and technology. The history of the Army is a story of men and women who have served proudly and well in whatever situation they found themselves. In summary, the Army story is one of service to the Nation.



Contributions to the Nation

MEDICINE

The Army has always been especially sensitive to the need for good medical services in the field. During the Revolutionary War, for example, the first reference book pertaining to medicine and drugs in the United States was produced for the Army. In the 19th century, Army physicians made original contributions in the treatment of digestive system disorders, hospital hygiene and the treatment of mental illness; soldiers also pioneered in campaigns against hookworm and malaria. Army medical contributions have continued into the 20th century.

EDUCATION

Some of the first schools along the American frontier were on Army posts, where soldiers were teachers

for children from the surrounding community. For more than a generation after the founding of the U.S. Military Academy, West Point was the only source of our country's trained engineers and topographers.

In World War I, the Army provided troops in Europe with a range of instruction—from grammar school to graduate school—which was further expanded after World War II. Among the Army's recent accomplishments was Project Transition, a remarkably successful program whereby people leaving the service were offered an opportunity to acquire a skill useful in civilian life. In a fitting summary of such achievements, one Secretary of Defense described the U.S. Armed Forces as the greatest educational institution in the world.

ECONOMICS AND SOCIOLOGY

Twice in U.S. history, crises occurred in the civilian community of such magnitude that virtually the entire government apparatus had to be employed, and in each one the Army played a crucial role. The first was in the post-Civil War period when thousands of people were homeless and without means of support. Congress responded by creating within the War Department, the Bureau of Refugees. Its task was to provide relief for anyone who needed it. The bureau provided educational programs, monitored labor contracts and local courts, resettled people on bureau-acquired land, operated hospitals, and fed needy citizens who might otherwise have starved.

In much the same manner, the Army offered help during the Great Depression of the early 1930s. It administered the Civilian Conservation Corps (CCC), which transferred young men from relief rolls to constructive workers in the Nation's woodlands.

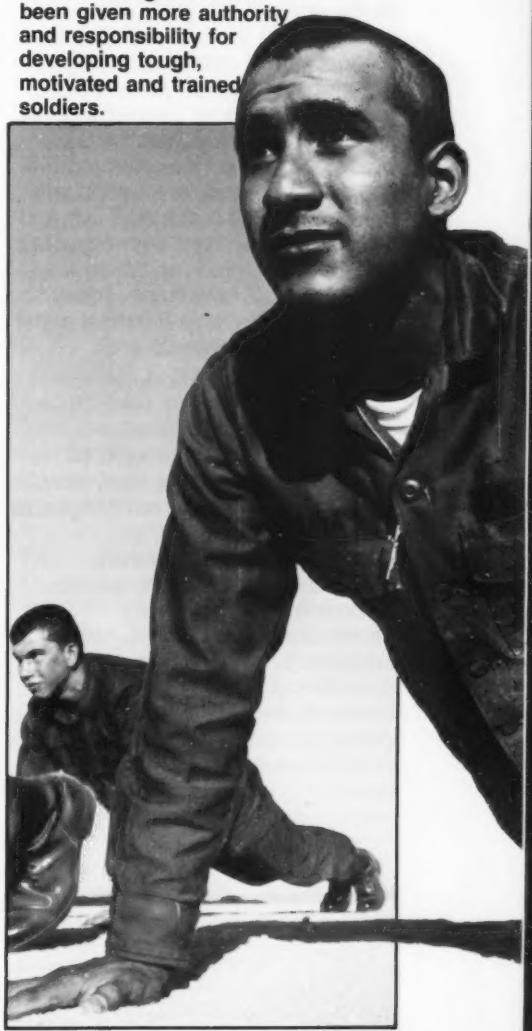
DISASTER RELIEF

Military relief activities have become so commonplace that the country has come to depend on servicemen to save lives and property following cataclysms. In recent disasters, such as the Texas City explosion of 1947, floods and blizzards of the 1950s, the Alaskan earthquake of 1964, Hurricane Agnes in 1972, and the Guatemalan earthquake of 1976, Active Army, Army National Guard, and U.S. Army Reserve soldiers continued their tradition of doing whatever was needed to save lives and ease suffering.

CIVIL WORKS

In the early days of our westward expansion, Army engineers were at the forefront, exploring, surveying, mapping and recording in detail the bewildering diversities of unknown territory. They were the path-markers who played a major role in developing the vast, unknown frontier.

Army basic training has improved considerably, and company commanders and drill sergeants have been given more authority and responsibility for developing tough, motivated and trained soldiers.



Because it was the only professional engineering outfit in being at the time, the Congress in 1824 gave to the Corps of Engineers its first water resources development tasks of surveying the treacherous currents, clearing snags and removing sand bars from the Mississippi and Ohio Rivers. These tasks became the first in a series of bold projects designed to improve not only the navigability and usefulness of these river giants, but the development of a national system of inland and intracoastal waterways, as well as coastal harbors which today link our Nation to the ports of the world.

Other Civil Works missions followed: flood control to protect Americans from the ravages of periodic high water; development of hydroelectric power which has become so critical as an energy supplement today; water supply for municipalities and industry, fish and wildlife enhancement and migration; and water-oriented recreation for nature-hungry Americans. Today, the Army is our Nation's foremost water resources development and management agency.

TECHNOLOGY

The Army has contributed to scientific knowledge in many ways. Eli Whitney's use of interchangeable parts in manufacturing, a prerequisite for modern mass production, spread to the civilian community after the Army demonstrated its success. Military surgeons began the first systematic collection of weather data in the United States, and the Signal Corps carried on that work by founding the country's weather service and developing much of the instrumentation that has gone into modern weather forecasting.

Today, Army technology continues to provide benefits for our society. Many convenience foods found in supermarkets are an outgrowth of Army research in long-term storage, weight, and bulk. The list includes freeze-dried foods, canned bakery products, bakery mixes, and instant beverages—from fruit juices to dry milk.

Scientists and engineers at the Army Natick Laboratories have devised a system whereby the cellulose part of waste paper, cardboard, and plastic scraps, as well as other vegetable and industrial waste, may be converted into usable glucose.

The Army Today

The United States Army continues to be a shield for the Nation. While events in recent years have profoundly reshaped its structure, the Army still has a global mission, mainly concentrated in Europe, Korea and the United States. It maintains 16 active Army divisions, 8 Army National Guard divisions and 12 Army Reserve training divisions. Concurrently, under a security assistance program, the Army helps America's allies attain adequate military capabilities to defend their freedom.

DEPLOYED FORCES

The deployment of Army forces overseas is vital to support national treaty commitments and to serve as a deterrent to aggression. Troops assigned to United States Army Europe and the Seventh U.S. Army are prepared to meet armed aggression against free world countries in Europe.

Eighth Army soldiers stationed in Korea continue to serve with distinction to help maintain the security of the Republic of Korea. This American presence has forged a stronger South Korea and provides evidence of our Nation's determination to honor its commitments.

SPECIALIZED COMMANDS

Diverse responsibilities of the Army within the United States are assigned to specialized commands.

- The U.S. Army Forces Command (FORSCOM), Fort McPherson, Georgia, is responsible for unit training and operational readiness of all deployable combat and support forces of the Active Army, Army National Guard, and U.S. Army Reserve.
- The U.S. Army Training and Doctrine Command (TRADOC), Fort Monroe, Virginia, provides professional training for the individual soldier in service schools and training centers, manages the Army ROTC program, and directs combat developments. It also supports individual and collective training in units.
- The U.S. Army Materiel Development and Readiness Command (DARCOM, formerly AMC), Washington, D.C., is responsible for the research and development of materiel, and the readiness of that materiel while in the hands of the troops.
- The U.S. Army Health Services Command, Fort Sam Houston, Texas, provides medical health services, medical training and

The history of the Army is a story of men and women who have served proudly and well in whatever situation they found themselves. Here, two members of the 82nd Airborne on patrol during a training exercise, prepare themselves to respond when needed.

education in health specialties.

- The Military District of Washington, Washington, D.C., is responsible for Arlington National Cemetery, the conduct of all joint military ceremonies as they relate to visits of foreign heads of state and other dignitaries (to the White House), for state funerals, and other support or contingency missions that may be directed.
- The U.S. Army Communications Command, Fort Huachuca, Arizona, provides for the Army's long distance, intercontinental communications complex operating throughout the world.
- The U.S. Army Criminal Investigation Command, Washington, D.C., performs and exercises centralized command authority, direction, and control of Army criminal investigative activities worldwide.
- The U.S. Army Recruiting Command (USAREC), Fort Sheridan, Illinois, recruits personnel from civilian life for the Active Army, examines and processes applicants for enlistment in the Armed Forces, and assists the U.S. Army Reserve in its recruiting efforts.

COMBAT READINESS

During 1975, significant improvements were made in the Army's readiness posture. The 1st Infantry Division (MECH) (–), together with other nondivisional units, deployed to Europe during October and November to participate in an annual Reforger exercise. The deployment of such forces demonstrates the capability of the United States to send major combat forces overseas, and provides an opportunity for combined arms training in the European environment.

FORSCOM units participated in a total of nine successful joint training exercises and an expanded Reforger exercise. The command will be involved in some 17 joint training exercises in 1976, seven of which will be conducted overseas.

Brigade '75, which is the stationing of a mechanized infantry-heavy brigade in the Federal Republic of Germany on a combined permanent and rotational temporary-duty basis, was also successful. Brigade '76 is currently underway and will contribute additionally to combat power in NATO.

RESERVE COMPONENTS

Combat readiness was also enhanced during the year, as efforts continued to integrate Reserve component units into the Army's Total Force. A 1973 reorganization charged FORSCOM to develop a more effective organization to improve the readiness of the Total Force. In response, for the past 27 months, FORSCOM has directed its efforts toward improvements in Reserve component capabilities which have enabled them to assume more rapidly a greater responsibility in our defense posture.

Nowhere is the total force more evident than in Army programs to form the nuclei of three additional combat divisions. During the past year, one brigade was activated at each of three installations: the 5th Infantry Division (Mechanized) at Fort Polk, Louisiana; the 7th Infantry Division at Fort Ord, California; and the 24th Infantry Division at Fort Stewart, Georgia. Each of these divisions will have a designated affiliated Reserve component brigade, which is the first time active Army divisions have been organized with integral Reserve components elements.

This affiliation program is specifically designed to enhance the responsiveness of the Reserve

components. Some 92 battalions affiliated with active units during 1975. An additional eleven separate battalions and four brigades will be affiliated with active Army divisions in FY 77.

PERSONNEL MANAGEMENT

Increasing troop and unit effectiveness best describes the aim of personnel management during 1975. A year ago, the primary obstacle confronting the Army was a foreseen shortage of trained troops and a projected requirement for 11 per cent more first-term accessions. This problem was caused by the departure in unusually large numbers of drafted and draft-motivated enlistees who had completed their tours of service.

Through the vigorous efforts of the U.S. Army Recruiting Command (USAREC), the Army has shown that it can attract the numbers necessary to maintain its strength with only routine fluctuations, and it is doing so while recruiting quality people. During the first half of FY 76, 64 per cent of the new soldiers entering the Army were high school graduates, up 6 per cent from the previous year.

WOMEN IN THE ARMY

An important contribution to current and future success in recruiting is the expansion of the role women are playing in today's Army. The number of female soldiers has increased from approximately 12,000 in 1972 to more than 40,000 today. The Army plans to continue expanding the number of women to 50,000 or more by 1979.

In 1975, of 438 enlisted specialties available, 403 were open to women. They are now serving worldwide, in numerous non-traditional jobs, such as truck drivers, maintenance personnel, and communications and radar technicians. Women train alongside male counterparts in job training and specialized courses.

Army policy specifically precludes the assignment of women to combat arms or combat units. However, in order to prepare them for any contingency that may arise, rifle marksmanship is now part of their basic training. Women officers receive weapons training commensurate with that of men.

Beginning in 1976, women will be admitted to the United States Military Academy. With the exception of certain physical requirements, identical standards will exist for men and women. Women graduates, however, will not be commissioned in combat branches.

This is the fourth year of participation by women in the Reserve Officers Training Corps program. Today, more than 9,000 are enrolled in 282 host institutions. Last year, they participated for the first time with male peers in summer training exercises. The first women graduates are scheduled to be commissioned second lieutenants at the end of this school year.

IMPROVING PROFESSIONALISM

In addition to expanding career opportunities, the Army is taking steps to upgrade the status of its personnel and the quality of its units. A number of programs have been instituted to improve Army educational programs and provide quality support in the areas of force development and operational testing. Basic training has improved considerably. Company commanders and drill sergeants have been given more authority and responsibility for developing tough, motivated and trained soldiers.

One-Station-Unit Training (OSUT) is the program where Basic Combat Training (BCT) and Advanced Individual Training (AIT) are taken in the same unit with the same cadre. Training is Military Occupational Specialty (MOS)-oriented from the very first week. Presently the Army is conducting OSUT at Fort Knox, Fort Leonard Wood, Fort Sill, Fort Bliss, and Fort Gordon. It plans to establish OSUT at Fort McClellan and Fort Benning in FY 78. One-Station-Unit-Training saves training time, allowing the soldier to arrive at his operational assignment sooner.

Emphasis on the approach to unit training was shifted in 1975 through the adoption of new concepts, such as the Army Training and Evaluation Program (ARTEP). The ARTEP states performance objectives and describes performance tests for all the critical tasks of every organizational echelon within a battalion. The ARTEP replaces both the Army Training Program and the Army Training Test.

IMPROVING ARMY LIFE

Faced with the long-term requirement of maintaining a tailored force through volunteer recruitment, the Army has responded by providing greater attention to soldier-oriented programs. More emphasis is being placed on providing officers and noncommissioned officers with the most current leadership techniques and skills, and designing educational programs that will enhance personal and professional growth and development. The physical side is not being neglected, however. Modern Army enlisted barracks were completed at six installations during 1975. These barracks consist of dormitory-like buildings designed to improve the living environment of our soldiers.

RESEARCH AND DEVELOPMENT

Considerable improvements are being made in the development of materiel used by our soldiers. The ability of an Army to be successful on a modern battlefield depends to a great extent upon the excellence of its equipment. Army research and development (R&D) is providing

qualitative improvements to the force, both to meet today's needs and to anticipate future battlefields. The following major R&D programs are underway:

● The XM-1 tank, with its improved ballistic protection, cross-country mobility, and firepower, is designed to provide a significant improvement to the Army's offensive ground combat capability. Prototype vehicles were delivered in February 1976, and the competitive evaluation is in progress.

● The Mechanized Infantry Combat Vehicle (MICV) is designed to provide significantly improved mobility, firepower and armor protection. Operating with the XM-1 tank, the MICV will permit infantry to fight while mounted and protected. Developmental testing began last September. Delivery is scheduled for January 1979.

● The Advanced Attack Helicopter (AAH) is designed as a highly-mobile aerial antitank weapon system capable of performing in mid-intensity environment and to provide, for the first time, a night and adverse weather capability.

● The Utility Tactical Transport Aircraft System (UTTAS) is being developed to replace the UH-1 as the Army's squad assault, air cavalry, and medium helicopter. The prototypes have accumulated over 1,200 hours of successful test flight. The first delivery is scheduled for August 1978.

● The Surface-to-Air Missile Development (SAM-D) Program is designed to counter the expected aircraft threat to the Army in the field for the 1980s and beyond. Flight tests were completed in February 1976, and resumption of full-scale engineering development was approved.

Throughout its history, the United States Army has been a staunch contributor to the Nation's progress. Its legacy is written not only in the rolls of its great campaigns and battles, but in its contributions—subtle and overt, incidental and intended—to the growth of the Nation.

In addition to defending and preserving our freedom, the Army has contributed substantially to our knowledge of medicine and education. It has thus helped alleviate suffering and saved lives. It continues to pioneer in technological advancement.

As America celebrates the Bicentennial year, there is no better way to honor the Nation on its birthday than to steadfastly continue to protect and preserve our government, its institutions, and its people through the decades and centuries ahead. The Nation has the finest Army in the world—it can afford no less.

Professional training keeps Army personnel ready to meet situations which might confront them. Soldiers (top left) await their turn to exit the aircraft during a parachute jump, while the "Vulcaneers" of the Army's only airborne air defense artillery battalion light up Ft. Bragg's sky during a night firing exercise. A squad leader (bottom right) exercises his ability to walk across the three-rope bridge at the Counter-guerrilla Warfare School.

Navy

Since its emergence from World War I as a world power, the United States has come to rely more and more on its Navy to safeguard its interests. This reliance is directly related to the fact that the United States is an "island nation," with only two international borders, two extensive seacoasts and two states located overseas.

With ever-increasing world interdependence, the U.S. Navy serves as the forward arm of the Nation, the shield which guards U.S. commerce on the high seas and acts as a visible manifestation of the protection of U.S. interests around the world.

The primary mission of the U.S. Navy, then, is to be prepared to gain and maintain control of the seas, and to utilize that control in support of national policy.

This mission is a complex one. The United States currently has 43 international treaties or security arrangements with other countries; 41 of those countries are overseas. In wartime, the great quantities of petroleum, ammunition, food and other equipment necessary can be resupplied and supported only by ships. In peacetime, the Navy provides a military presence to reassure allies and to deter potential adversaries.

To carry out its mission, the U.S. Navy currently maintains a strength of approximately 528,000 officers and enlisted personnel. Women are playing an increasingly important role, and there are currently about

This is the new amphibious assault ship, the USS Tarawa (LHA 1), which was delivered to the Navy recently. A second of this type is expected to be ready in less than a year.

21,500 women serving in the U.S. Navy. They hold the same jobs as men, but are restricted by law from serving on board naval vessels other than transports and hospital ships.

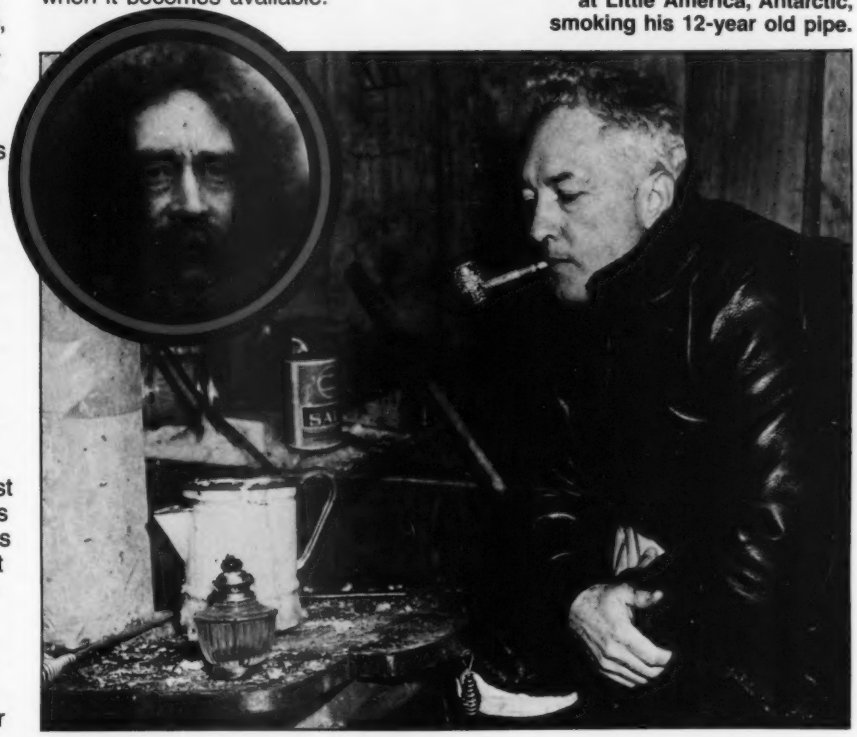
Deployed Navy units carry out their mission by maintaining a presence at sea and showing the flag in foreign ports. Control of the world's sea lanes and projecting the Nation's power overseas is achieved through the Navy's four "numbered" fleets—the Sixth in the Mediterranean, Second in the North Atlantic, Third in the Eastern Pacific, and Seventh in the Western Pacific. They visibly demonstrate support to allies of the United States throughout the world.

The current Navy arsenal consists of 174 cruisers, destroyers and patrol ships, 14 aircraft carriers and 65 amphibious warfare ships. Forty-one Fleet Ballistic Missile submarines offer a vital strategic offensive force, and 73 nuclear or conventionally-powered attack submarines round out the fleet.

The Navy's air arm includes approximately 5,000 aircraft. These are attack, fighter, anti-submarine patrol and helicopter types.

The USS Nimitz (CVN 68), newest of the Navy's aircraft carriers and its second nuclear powered carrier, was commissioned last year. The largest warship in the world, she displaces 94,000 tons when fully loaded, is capable of speeds in excess of 30 knots, can accommodate a crew of 6,286, and can carry approximately 100 aircraft of the latest design. Her two nuclear reactors will allow her to steam for about 13 years without refueling.

The latest type destroyer in the ship inventory is the Spruance-class which is fitted with the most advanced sonar. These ships—which carry helicopters—will be extremely effective antisubmarine warfare weapons. The largest U.S. warship to be powered with gas turbine engines, this class destroyer will also carry the new Harpoon surface-to-surface missile system when it becomes available.



Navy Rear Admiral Robert E. Peary (inset) discovered the North Pole on April 6, 1909. He died in 1920. Rear Admiral Richard E. Byrd was the first to fly over the North Pole. Two years later in 1928, he made his first expedition to the Antarctic. Here, he sits in his base camp at Little America, Antarctic, smoking his 12-year old pipe.

Women are playing an increasingly important role, and there are currently about 21,500 serving in the Navy. Women in the Navy, like this helicopter pilot, hold the same jobs as men, except where restricted by law from serving on board naval vessels other than transports and hospital ships.

The first of this class ship was commissioned in October 1975, and the second followed in February 1976; six more are expected to join the fleet this year. The remaining 22 are in various stages of construction.

Designed as replacements for aging World War II destroyers, the Navy's new guided missile frigate, headed by USS Oliver Hazard Perry (FFG 7), will be equipped with helicopters, torpedoes, harpoon missiles, standard missiles and the new rapid-fire, 76mm, Oto Melara gun. Perry has a 1977 delivery date and the other ships of this new class will begin entering the fleet in numbers in 1980.

Also in the Navy's ship inventory is the new surface effect ship which is designed to skim over the water on a cushion of air. Currently, two 100-ton ships of this type are being tested and one of them has achieved a speed of 80 knots.

This past spring, the Navy took delivery of a new amphibious assault ship, the USS Tarawa (LHA 1); a second of this type, the USS Saipan (LHA 2), will be ready in less than a year.

Another new ship, the USS Pegasus (PHM 1), a Patrol Combatant Missile boat, is well suited for surveillance and blockading roles and possesses an offensive capability against major surface combatants. The Harpoon-equipped Pegasus is powered by a gas turbine driving a water jet propulsion system.

Three Trident submarines are currently under contract and a new Trident base to support these new subs is scheduled to open in 1978. The Trident sub is 560 feet in length and will carry 24 ballistic missiles, each with a 4,000-mile range. The range of the missiles and the ship will allow operation out of U.S. ports, rather than depending on bases located in foreign countries.

The Navy's requested budget for Fiscal Year 1977, beginning October 1976, is $37.4 billion. This includes

$6.3 billion earmarked for new ship construction, many to replace World War II ships still active in the fleet. Sixteen new ships will be ordered in Fiscal Year 1977.

A five-year projection calls for construction of 111 ships in the FY 77-81 period. These would include seven missile-launching submarines, three aircraft carriers, two cruisers, 48 destroyer-type ships, 10 mine warfare ships, one amphibious warship and 20 support ships. Total estimated cost, including allowance for inflation, is $35.4 billion.

Contributions to the Nation

The 200-year history of the Nation and the course of the U.S. Navy closely parallel one another; the powerful naval force of today was born at the very outbreak of the American Revolution in 1775. The ships of the Continental Navy were manned by seasoned mariners who had sailed the oceans of the world on voyages of trade. Hundreds of home-built privateers dogged the British Lion's heels, continually interrupting the flow of men and war goods from England to her forces in America.

There was a sense and spirit of innovation during the Revolution which has characterized U.S. naval history through the years. In 1776, David Bushnell, a Connecticut school teacher, had an idea for attacking British ships from under the surface. His submarine invention was known as the Marine Turtle (or Maine Turtle); he is also credited with fabricating a Revolutionary War version of a torpedo, complete with contact fuse.

Following the Treaty of Versailles, the Navy was disbanded. Then in 1794, Congress passed a law for rebuilding the Navy and constructing six new frigates. A Philadelphian, Joshua Humphreys, designed and supervised the construction of those ships, beginning with the USS Constitution and the USS Constellation. Humphreys' designs put American shipbuilding and ships at the forefront of the maritime world.

Robert Fulton, using James Watts' basic steam engine, constructed the steam-powered Clermont in 1807. Fulton then turned his attention to the building of Demologos, the Navy's first steam warship. Originally designed for the defense of New York in the war of 1812, the ship missed the war and ended up as a training and receiving ship.

This Navy patrol hydrofoil, guided missile, Pegasus PHM-1, skims water at speed in excess of 40 knots during a test. Several of the harpoon missile-launcher tubes are visible on stern and rapid-fire 76mm gun can be seen on bow.

As the Navy switched from sail to steam, there was a great need for improvement in guns as well. John A. Dahlgren (later a rear admiral) invented the world's first breech-loading gun which was used effectively throughout the Civil War by the Union Navy.

As progress was being made along technical lines, George Bancroft, Secretary of the Navy, saw the need for formal education, and his efforts resulted in the establishment of the Naval Academy at Annapolis, Maryland in 1845. Coupled with the Naval War College (founded at Newport, Rhode Island, in 1884 by Commodore Stephen B. Luce), and later the Navy Postgraduate School (also at Annapolis and now at Monterey, California), naval officers have received well-rounded, in-depth education.

Other leaders in education were Captain Alfred T. Mahan and Admiral William S. Sims. Mahan's treatises on seapower have been studied throughout the world. Sims initiated the Navy's apprentice training program for enlisted personnel.

Since the days of John Paul Jones' dealings with the French during the Revolutionary War, American naval officers have also served as diplomats. Edward Preble conducted negotiations with a host of Barbary nations after defeating their ships during the War with Tripoli. Captains David Porter and James Biddle, before the Civil War, secured commercial treaties with the islanders in the South Pacific. Captain John Rodgers arranged commercial pacts with Turkey and Captain J. D. Henley did the same in the East Indies. Commodore Robert Stockton took possession of California for the U.S. in 1846, and Stockton, California, bears his name.

A treaty of far-reaching importance was negotiated by Commodore Matthew Calbraith

Perry when, in July 1853, he opened trade between Japan and the western world.

"Pathfinder of the Sea" was the title earned by Matthew Fontaine Maury in the 19th Century. Assigned to the Depot of Charts and Instruments at the Washington Navy Yard (forerunner of the Naval Observatory), Maury became the leading expert on maritime charts and the effect of air and water temperatures, currents, wind and weather. His work continues to be carried out today by Navy oceanographers.

Admiral Bradley A. Fiske, one of the Navy's foremost scientists of the 1890's, invented the telescopic sight, the stadimeter for determining the relative range of other ships, the electric rangefinder and turret rangefinder. In 1912, he spurred development of the torpedo-carrying airplane.

Ingenuity and determination were common characteristics of Robert E. Peary and Richard E. Byrd, two naval officers whose conquests of the polar and sub-polar regions made history and contributed much to the art of survival in cold weather. Civil Engineer Peary gained the North Pole on April 6, 1909, capping an effort that extended over 23 years. Along the way he invented the sledge which today is still the primary means of transportation in far northern regions.

Admiral Byrd conquered the South Pole by air on Nov. 29, 1929. Skiers, mountaineers and outdoorsmen still benefit from one of Byrd's accomplishments—a light-weight tent which will keep a person warm and protected from the elements with the heat of only a candle.

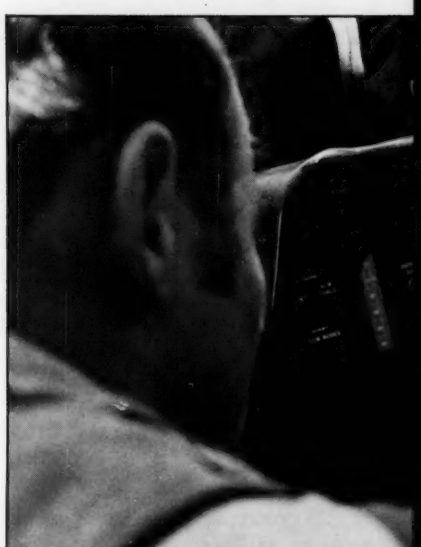
Admiral Byrd did much during his lifetime to foster an enduring interest in the Antarctic on the part of the American people and the U.S. Navy. The government inaugurated the U.S. Antarctic Service (1939-41) which was supported by the U.S. Navy. With the end of World War II, a massive assault was launched on the continent by the Navy during Operation Highjump (1946-47). In 1956, the Navy began preparations for the International Geophysical Year (IGY) of 1957-58 by constructing seven base camps in the Antarctic.

The IGY led to a treaty in 1959 for continuing scientific effort in Antarctica by the 12 nations which originally took part in the geophysical year program. For the past 21 years, the U.S. Navy, through its Operation Deep Freeze, has provided aerial logistics support for all U.S. endeavors on the continent, Until recently, the Navy's Seabees accomplished all construction and maintenance of American bases on the ice. The Navy still brings in most supplies by ship from the outside world and ferries them by air to the remote inland stations.

The Navy's infant air arm made a lasting contribution to the Nation shortly after the end of World War I when three NC (Navy Curtiss) flying boats took off from Far Rockaway, N.Y., on May 8, 1919, to cross the Atlantic for the first time in history. Plagued by mechanical difficulties, two of the planes failed to make the whole route, but the NC-4, piloted by Lieutenant Commander Albert C. Read, reached Lisbon, Portugal. Read's message back to the President read, "We are safely across the pond. The job is finished."

Navy pilots have undertaken numerous missions to advance the Nation's position in the world of aviation. The sagas of the airships Shenandoah, Akron and Macon thrilled flight enthusiasts in the 1920s and 1930s, just as the space shots of the 1960s sparked the Nation's interest and pride.

Even while engaged in conflict in Southeast Asia, the Navy still found time to continue its work related to the space probes that started in 1961 when Alan Shepard (later a rear admiral) became the first American in space. The Navy was actively involved in all Mercury, Apollo and Skylab missions including the first walk on the moon in 1969 by ex-naval aviator Neil



COMMANDERS DIGEST

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Armstrong. Five of the six men to walk on the surface of the moon had graduated from the ranks of naval aviators. Moreover, the Navy has been, and continues to be, involved in all recovery operations for returning American astronauts. Its ships, helicopters and pararescue teams have made those recoveries an exact science.

As American scientists began to consider the likely applications of nuclear energy, Captain (now admiral) H. G. Rickover began inquiries in 1947 on construction of a high-pressure, water-cooled reactor for a submarine. By December 1948, the Atomic Energy Commission had executed a contract for a prototype nuclear propulsion plant. Subsequently the USS Nautilus (SSN 571), the world's first nuclear-powered submarine, initially put to sea on June 17, 1955. In the next few years nuclear power was incorporated into cruisers and aircraft carriers of the surface Navy. The sea service now has seven nuclear surface ships at sea, from the veteran USS Long Beach (CGN 9) to the newest, USS Nimitz (CVN 68). USS Eisenhower (CVN 69) is about to join the fleet, having recently been launched and four other guided missile cruisers and one carrier are waiting in the wings.

The Navy of the 1970s continues to make contributions to the Nation through men like Dr. Herbert Friedman, Superintendent of the Naval Research Laboratory's space science division and chief scientist of the E. H. Hulburt Center for Space Research. Dr. Friedman conducted experiments in rocket astronomy with a V-2 rocket in 1949, and has since participated in more than a hundred rocket experiments and numerous satellite programs. These experiments have traced the solar cycle variations of x-rays and ultraviolet radiations from the sun, revealed the x-ray emission of solar flares, produced the first x-ray and ultraviolet photographs of the sun, discovered the hydrogen geocorona, and measured the ultraviolet fluxes of early-type stars.

Many products in common use today have resulted directly from Navy research. Fiberglass, used in a multitude of consumer products, was developed as a motor case for the Navy's Polaris Missile. An electric motor-driven mechanical arm which amputees can control with their shoulder muscles is also the result of Navy research.

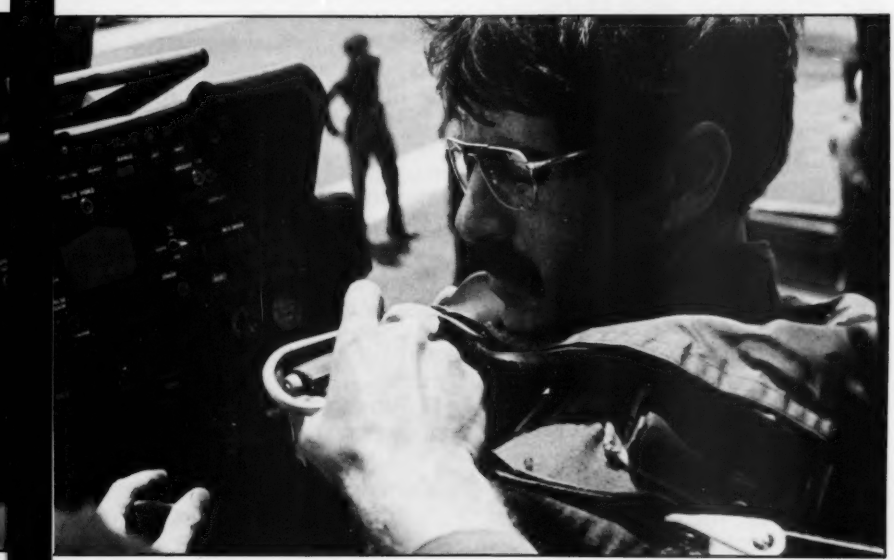
An atomic radiation dosimeter which measures radiation hazards to the individual is now in wide use in civilian nuclear power plants and other atomic installations. It was developed first for use aboard nuclear powered submarines and surface ships in the Navy.

The Navy's work in oceanography and sciences has laid the foundation for developments of major magnitude including eventual retrieval of minerals, oil, fresh water and food from the sea. Other developments include the gaining of extra living space and work bases on and beneath the sea.

Navy bio-electronics laboratories have discovered a way to examine a person's eyes by measuring electrical impulses in the eye-brain system. And significant breakthroughs have been made in patient monitoring systems which measure a patient's pulse rate, oxygen use, muscle signals and brain waves.

The Navy has played an increasingly active role in the field of environmental pollution control. Navy programs have contributed to man's ability to manage solid wastes, control and contain oil wastes in harbors, reduce noise pollution from jet aircraft, prevent oil spills at sea, and properly manage natural resources on land.

Beginning its third century of service to the Nation, the Navy continues to pursue its innovative programs and to fulfill its responsibilities on the seas in behalf of U.S. security and defense.



The pilot of an F-14A Tomcat fighter aircraft gets some help before operations begin aboard the Navy's USS Enterprise.

AIR FORCE

The Air Force makes another successful launch in testing the Minuteman III missile.

"Leaner and meaner" is a frequently heard expression in unofficial corners of the Air Force.

Despite force cutbacks and budget restraints the Air Force still possesses the muscles of deterrence and a modernized force to maintain aerospace superiority that are "leaner and meaner" in readiness and determination.

Two centuries ago we gained individual liberty and representative government. The Air Force contributes to maintaining them today by teaming with sister services and other nations of the free world in preventing war.

American ideals have not changed appreciably during the past 200 years, although muskets and cannons no longer serve as the major weapons of deterrence. Today we depend upon intercontinental ballistic missiles (ICBMs), high-speed bombers, computers, sophisticated electronics, and the many other technological breakthroughs.

As the youngest of the American Armed Forces, the Air Force traces its official beginning to the National Security Act of 1947, but marks its heritage from the beginning of powered flight by the Wright brothers in 1903.

The National Security Act of 1947 marked the beginning of the present Department of Defense and a separate and equal Department of the Air Force. The fledgling service was to be "organized, trained, and equipped primarily for prompt and sustained air offensive and defensive operations."

AIR FORCE MISSIONS

Today's Air Force operations involve both air and space—aerospace—but the overall job has not changed basically through the years. The Air Force supplies the Nation's primary capabilities to:

- Maintain general aerospace supremacy and thus support our policy of deterring every intensity of conflict;
- Defend the United States against aerospace attack;
- Control vital aerospace areas;
- Conduct strategic and tactical aerospace warfare against selected enemy targets, if deterrence fails;
- Furnish tactical air support for the ground forces;
- Provide combat airlift mobility for Department of Defense forces, including logistical air support and aerial resupply of global operations of the Department of Defense;
- Conduct combat support operations such as strategic and tactical reconnaissance and meteorological study;
- Meet the major space requirements of the Department of Defense;
- Provide research, development test, and engineering of satellites,

The F-15 Eagle, an advanced air superiority fighter, came into the Air Force's inventory in late 1974 and set a world time-to-climb record in 1975.

'Leaner and Meaner'

boosters, space probes, and associated systems necessary to support specific National Aeronautics and Space Administration (NASA) projects and programs arising under basic agreements between the Department of Defense and NASA; and

● Conduct the research, development, production, and testing required for the acquisition of aerospace systems.

The primary objective of the Air Force is to deter war. The foundation of national security policy is the deterrence of actions which could be a threat to the security of the United States and areas considered vital to its interests.

Although all areas of national power are aimed at the role of deterrence, the most important objective of the military instrument is deterrence of deliberate, hostile actions against the United States or its allies. Briefly stated, the United States wants to be certain potentially hostile powers will recognize the totally unacceptable losses they must bear should they attack the United States.

TRIAD

The strength shown by the strategic TRIAD tells potential enemies that TRIAD's flexibility and destructive power would make an attack on the United States sheer folly.

Deterrence of strategic nuclear war has the highest defense priority of the United States. At the top of the deterrence process are the strategic nuclear forces which consist of a TRIAD of complementary and mutually supporting components.

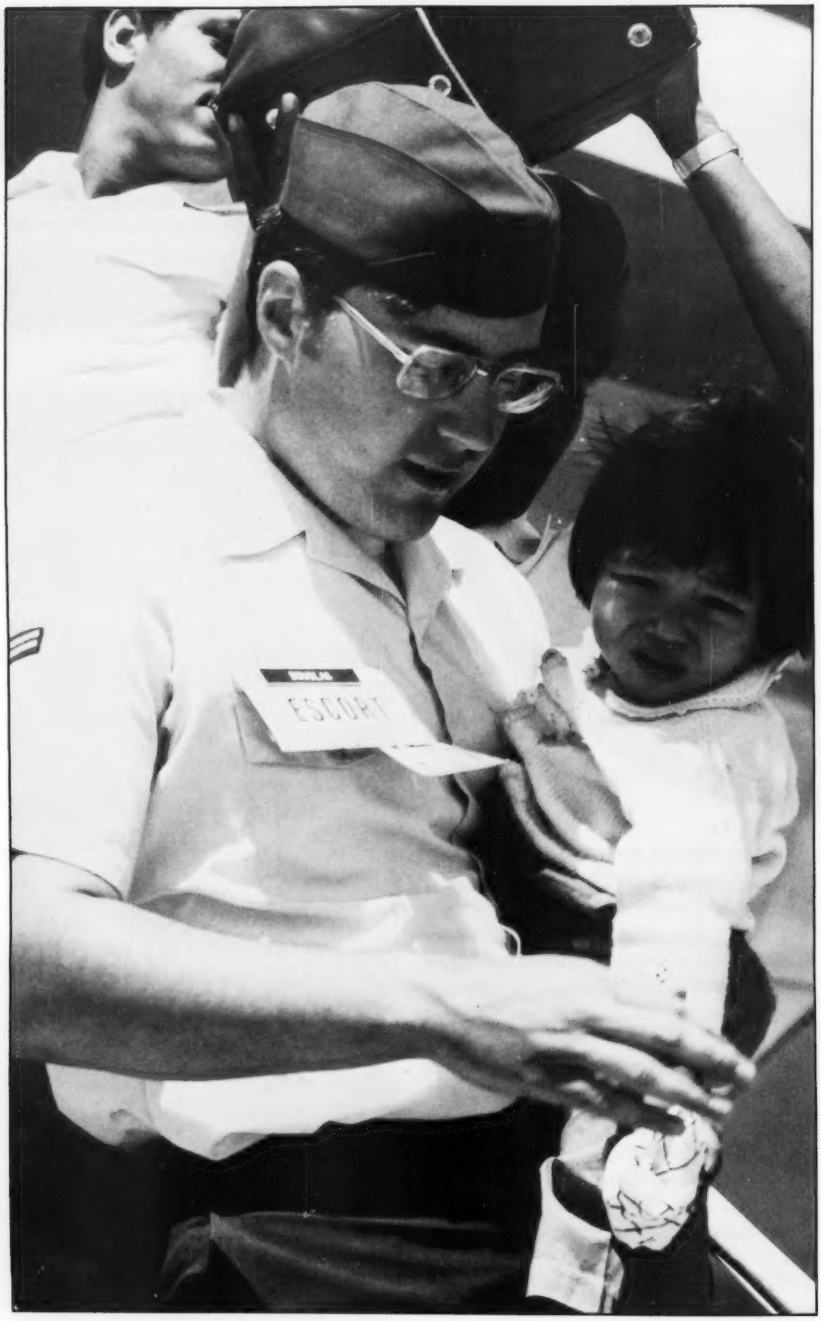
Because the uncertain intentions and future capabilities of potential enemies affect the deterrence process, it is essential to the security of the United States and its allies that deterrent forces provide assurance against these uncertainties. This assurance is best achieved through a mixed offensive force known as strategic TRIAD—manned bombers, land-based missiles and sea-launched missiles.

TRIAD exploits the unique capabilities of rapid response missile systems, and the controllable reusable manned systems.

This mixture of forces avoids dependence upon a single type of system which might experience operational failure or be successfully neutralized by a technological breakthrough of an enemy.

TRIAD compounds an enemy's defensive problems by forcing him to confront these multiple and varied systems. This mixture of diverse and dispersed strategic systems is programmed to complicate an enemy's offensive strategy by posing severe tactical problems such as timing and weapons allocation.

In terms of the TRIAD of weapons, the Air Force has 1,000 Minuteman and 54 Titan II intercontinental ballistic missiles (ICBM), approximately 350 B-52, and 70 FB-111 strategic bomber aircraft. The Navy controls the



"Operation Babylift" was an airlift success for the Air Force as they transported Vietnamese children to the United States. Here, an airman carries a Vietnamese child from an aircraft.

submarine-launched Polaris and Poseidon missiles.

The most recent entry into the ICBM force is Minuteman III, an advanced missile that can carry a larger payload. Due to enter the manned bomber force in about 1980 is the B-1, a supersonic bomber capable of carrying a larger load and more varied weapons, at faster speeds than the mainstay of today's bomber force, the B-52.

MODERNIZATION

The Air Force continues to move ahead with its forces' modernization program. The F-15 Eagle, an advanced single-seat air superiority fighter, came into the active inventory in late 1974. The multi-mission Mach 2 F-16 fighter was selected in early 1975 to complement the more sophisticated F-15. It will help counter the trend toward rising weapon systems costs and will permit modernization and planned expansion of tactical forces. The F-16 is expected to enter the active inventory in the early 1980s.

The first production A-10 close air support aircraft flew in October 1975 and will begin entering the operational forces this year.

The A-10 is capable of delivering up to 16,000 pounds of ordnance and employing a 30 mm high-rate-of-fire gun system against ground targets. The A-10 has excellent maneuverability at low and moderate speeds and long loiter time over target areas.

The first production airborne warning and control system (AWACS) aircraft is scheduled to enter the Air Force inventory in late 1976. Six are planned.

AWACS, officially designated E-3A, is an airborne radar and command and control center installed in a modified version of a Boeing 707 aircraft. AWACS can detect and track both high- and low-flying aircraft over all types of terrain. It can also control friendly aircraft in either a tactical or air defense battle.

In August 1975 the Air Force YC-15 prototype advanced medium short takeoff and landing transport (AMST) flew for the first time. Its first flight test is scheduled for the summer of 1976.

Also in 1975, flight tests continued with the advanced airborne command post, a modified Boeing 747 which will replace the EC-135 aircraft presently used by the National Command Authority and the Strategic Air Command.

AIRLIFT CONSOLIDATION

Air Force overseas tactical airlift resources were consolidated and transferred to the Military Airlift Command (MAC) in March 1975 along with the aeromedical evacuation resources in Europe and the Pacific.

The change was the second major step in the consolidation of all Air Force airlift—tactical and strategic—under MAC. The first step was the consolidation of all continental U.S. tactical airlift in December 1974.

The shift of responsibilities to MAC was aimed at increasing efficiency and flexibility of total airlift capability. The strategic airlift basically includes MAC's longer-range, heavy airlift cargo jets—the C-141 Starlifter and the C-5 Galaxy. C-130 Hercules aircraft provide the primary tactical airlift through their capability of flying into short, unimproved landing strips such as those encountered in combat areas.

Today's United States Air Force is about two-thirds the size it was seven years earlier. By the end of 1975, the Air Force was trimmed to about 600,000 persons serving on active duty. The Air Force enlisted professional of today is a better educated person. Only a few do not possess a high school diploma. Approximately one-fourth of the officers have earned either a Master's or Ph.D. degree.

REFUGEES

United States involvement in Southeast Asia came to a close in 1975. Just as Americans sought their freedom 200 years ago, so did many South Vietnamese seek freedom rather than witness the takeover of their country by a Communist regime from North Vietnam.

Air Force members were deeply involved in efforts to get those South Vietnamese out of their country who wanted a new life elsewhere. Through the use of MAC aircraft and commercial contract flights, thousands were airlifted to refugee centers in the Pacific and the United States.

HUMANITARIAN EFFORTS

Throughout the years, the Air Force has had humanitarian concern for people. The concern is not just for Americans, but for people around the world who benefit from Air Force capabilities in times of disaster.

The Air Force has used its significant resources to assist civil authorities during disasters, and has conducted searches for downed flyers, lost hunters, and others, and has answered countless calls during floods, snowstorms, forest fires, tornadoes, hurricanes, typhoons, droughts, and other disasters.

In one such effort, as 1974 was winding to a close, a cyclone devastated the city of Darwin, Australia. Air Force C-141 aircraft flew 10 missions in support of disaster relief operations there. More than 250 tons of emergency relief equipment and supplies were delivered and more than 1,000 refugees were evacuated.

In a similar effort in mid-1975, three Air Force C-130 Hercules transports airlifted emergency relief supplies and equipment to the flood-stricken city of Recife, Brazil. Items airlifted included 10,000 blankets, 12,000 sheets, and 1,300 cots.

These and other crises of various sorts throughout the year found the Air Force and its people responding promptly to human needs.

SOCIAL ACTIONS

The Air Force continues to place strong emphasis on insuring professional military management of people-related problems through its Social Actions Program. A major milestone in the area of equal opportunity was the implementation of a revised Affirmative Actions Plan during the past year.

The Air Force has also moved toward its goal of training all military and civilian personnel in a second phase of Human/Race Relations Education by July 1976.

During 1975 the Air Force increased its emphasis on providing services to satisfy unique needs of personnel of Spanish speaking origins (SSO). As a result of field visits, immediate results were noted, such as a change in the Army and Air Force Exchange requisitioning procedures for phonograph records in exchanges to reflect the ethnic composition of its patrons; and efforts by the Armed Forces Professional Entertainment Office to increase the number of SSO-oriented USO shows. Long-range goals established include actions like rounding out the Air Force collection of library materials to satisfy the interest of personnel of Spanish speaking origins.

WOMEN TO ATTEND ACADEMY

In 1975, President Ford signed a bill authorizing women to attend the military academies and 543 women had received nominations to the Air Force Academy at the beginning of 1976. About 150 women will enter the academy this summer.

LOOKING BACK

When the United States Air Force officially came into being in 1947, it was already 40 years old.

Actually, the Air Force can trace its beginnings to the Aeronautical Division established in the office of the Chief Signal Officer, U.S. Army, in 1907. That new division was manned by one officer and two enlisted men.

At the beginning of World War I, the airplane was still considered a toy by most military men. A few realists developed it into a deadly weapon. Airmen emerged from that war convinced that airpower would dominate future wars.

The aviation leaders were forced to wait two decades before aeronautical development and an apathetic public caught up with their beliefs.

Military aviation enthusiasts were frustrated by the years between the wars.

PEOPLE AND EVENTS

General Billy Mitchell. On July 21, 1921, the bomb explosion "that was heard around the world" took place in the Atlantic—about 75 miles off Cape Charles, Va. General Billy Mitchell, then assistant chief of the Air Service, proved his point that airpower was an effective tactical and strategic weapon.

Directed by Mitchell, eight Martin MB-2 bombers of the 1st Provisional Air Brigade out of Langley Field, Va., sank the "unsinkable" ex-German battleship Ostfriesland in 25 minutes.

The Mitchell victory was a milestone in the development of airpower. It proved that even "unsinkable" seacraft were vulnerable to air attack, and that the airplane was the weapon of the future.

Air-To-Air Refueling. Aerial refueling is taken for granted today. But modern air-to-air refueling is a complex, precision operation which grew from difficult beginnings.

In the period following World War I, competition was keen to make and break world aviation records. In America, great importance was attached to distance and endurance records.

On June 27, 1923, Captain Lowell H. Smith and Lieutenant John P. Richter completed the first "pipeline refueling" between two airplanes. Their equipment was a 40-foot length of standard gasoline hose and a piece of rope with which the fueling plane could retract the hose.

This was not the first air-to-air refueling which had been accomplished. That was done two years earlier by a man who walked from the wing of one airplane to the wing of another with a five-gallon can of gasoline strapped to his back.

The less spectacular, more practical method Smith and Richter developed enabled them, two months later, to establish a new world's endurance record in a DH-4 aircraft. They stayed aloft over San Diego, California, for 37 hours and 15 minutes.

Benjamin Foulois. After his death in April 1967, Major General Benjamin D. Foulois was described as "the link between the Wright brothers and today's astronauts."

In 1935, before most of today's military pilots were born, Foulois retired from active military service. Born in 1879, General Foulois set many Air Force firsts. He was the Nation's first to fly in combat, in the 1916 Punitive Expedition in Mexico; and was the first to lead an all-American squadron into battle in World War I.

Last But First. General Carl Spaatz was the last commanding general of the U.S. Army Air Forces and the first Chief of Staff of the U.S. Air Force. As the last, he planned the organization of the Air Force, and as the first, his leadership contributed to the effectiveness of the U.S. Air Force of today.

He held the rank of major when he commanded the "Question Mark" in the aerial refueling endurance flight over Los Angeles, California, during January 1929. The record-breaking flight lasted 150 hours, 50 minutes, and 15 seconds.

Black Pride. Charles B. Hall was a student at Eastern Illinois State Teachers College when, like thousands of other young men, he gave up his studies to enlist in the Army Air Corps—three weeks before Pearl Harbor.

He made military aviation history as the first black pilot to shoot down an enemy plane in World War II. He also became the first black to receive the Distinguished Flying Cross.

He was escorting bombers on raids over Sicily when he shot down a Focke-Wulf 190, one of the fastest and toughest fighters in the air. He earned the Distinguished Flying Cross for leading a patrol in which he downed two enemy aircraft while his comrades destroyed two others.

Greatest Ace. During World War II, 40 Japanese aircrews disputed mastery of Southwest Pacific airspace with Lieutenant Richard I. Bong, and all lost to the young P-38 Lightning fighter pilot. His 40 kills were, and still are, the best score of any American aviator.

"The greatest fighter ace of all Americans" is what General Douglas MacArthur called Bong as he presented him with the Nation's highest military decoration—the Medal of Honor.

In 1945, while flying a P-80 Shooting Star jet, Major Bong died in a crash near Burbank, California, at the age of 25.

Berlin Airlift. In 1948-49, the United States and the United Kingdom joined forces in one of history's most successful peacetime humanitarian operations, the Berlin Airlift. The airlift literally kept about two and one-half million people in the German city from starving.

On June 26, 1948, just two days after Soviet officials had isolated West Berlin by stopping all surface transportation into the city, the historic operation began.

In 15 months, U.S. and British aircrews made more than 275,000 flights into West Berlin. A total of 2,323,067 tons of vital necessities were hauled into the city—almost a ton of supplies for each person living there.

First Jet Ace. Captain James Jabara was flying one of 14 Sabrejets over Sinuiju, North Korea, near the Yalu River when they tangled with 50 MIGS. His two victories that day in May, 1951, gave him six jet victories and qualified him as the first American jet ace in that conflict.

During a subsequent tour in Korea, he destroyed nine more MIGS to give him a total of 15 jets destroyed in combat.

Silversmith To Silver Stars. Jeanne M. Holm was a professional silversmith before enlisting in the Army in July 1942—shortly after Congress established the Women's Army Auxiliary Corps (WAAC).

The young woman from Portland, Oregon, began her military career as a vehicle operator, graduating at the top of her motor transportation class.

She went on to make history as the first Air Force woman officer to attain star rank, and be instrumental in expanding the scope of Air Force careers for women in the process.

Jeanne M. Holm is best associated with the position of Director, Women in the Air Force (WAF), which she held from November 1965 through February 1973.

The former silversmith retired from active duty with the rank of major general in 1975, the first woman in the Armed Forces to attain that rank.

The first military airplane in the world was the Wright Flyer. It was tested and accepted at Ft. Myer, Virginia, in 1909.

A Walk In Space. Major Edward H. White II took a space-walk from Hawaii to Florida in 1965—and it took him just 22 minutes to complete that walk.

He became the first American astronaut to walk in space after he left his Gemini IV space capsule moving at 17,500 miles per hour, 120 miles above the earth. Remaining inside was Major James A. McDivitt, the capsule commander.

Astronaut White spoke of feeling "red, white, and blue all over" during the space walk, and of the "indescribable view and sweeping panorama" of the earth far below.

Eighteen months later, Ed White and fellow astronauts Virgil I. Grissom and Roger B. Chaffee died in a flash fire inside their capsule on the launch pad during a preliminary trial run for their planned Apollo I mission.

Exploration. On July 26, 1971, Apollo 15 was launched by a Saturn V booster from Cape Kennedy. Thus began the fourth successful U.S. lunar landing mission, but the first Moon Expedition directly aimed at gathering scientific information about the creation of the universe.

Apollo 15 carried the first all-Air Force crew in the Apollo program. Colonel David R. Scott was spacecraft commander, and on his third trip into space; Major Alfred M. Worden was pilot of the command service module; and Lieutenant Colonel James B. Irwin was pilot of the lunar module.

On July 31, as people on earth watched on color television, Astronauts Scott and Irwin, wearing special suits to protect them from the moon's high vacuum, got into their battery-powered lunar vehicle, and began the first historic ride on the moon.

Riding over the surface at about five miles per hour, top speed of 10 miles per hour on level surface, the crew stopped at designated places to collect rocks and moon soil, perform scientific experiments, and set up an array of geophysical instruments to collect and transmit data back to earth.

MARINE

Colonial Marines served in many capacities during the Revolutionary War. Marines were aboard the continental sloop Ranger when John Paul Jones and 30 Marines and seamen raided the Whitehaven Port on England's coast.

The U.S. Marine Corps, perhaps more than any other military organization in the world, prides itself on being first in military efficiency. This feeling of pride is founded upon a colorful past, a living tradition that continues after more than 200 years.

Traditionally, the Corps stands ready to go anywhere at any time. From the beginning of a Marine's training, this creed is instilled into each individual. As his rifle and equipment become a part of each Marine, so do the fighting traditions and the spirit of readiness.

MARINES IN THE AMERICAN REVOLUTION

The first shot of the American Revolution was fired April 19, 1775, more than a year before the birth of the United States of America. The first record of American Marines participating in this conflict dates from the following month. In May 1775, eight Connecticut Marines were sent as part of a relief force to garrison Fort Ticonderoga; these Marines came to be known as the "Original Eight."

During the Revolutionary War, Marines served on privateers and warships commissioned by the various states. The oldest official existing record of U.S. Marines can be found in the May 3, 1775 log of the sloop Enterprise, a ship from the State of Massachusetts operating on Lake Champlain which came under control of the Continental Congress on June 10, 1775.

In the fall of 1775, George Washington ordered the outfitting of several vessels of war; each vessel carried a detachment of colonial soldiers who acted as Marines. These ships were the forerunners of the Continental Navy, and the acting

CORPS

U.S. Marines hoist the Stars and Stripes aboard a Navy ship under combat conditions, while a Navy crew observes.

Marines were the forerunners of the Continental Marines.

CONGRESS RAISES TWO BATTALIONS OF MARINES

On November 10, 1775, the Continental Congress resolved: "That two Battalions of Marines be raised consisting of one Colonel, two Lieutenant Colonels, two Majors and officers as usual in other regiments; that they consist of an equal number of privates with other battalions; that particular care be taken that no person be appointed to office or inlisted (sic) into said Battalions, but such as are good seamen, or so acquainted with maritime affairs as to be able to serve to advantage by sea, when required. That they be inlisted (sic) and commissioned to serve for and during the present war between Great Britain and the colonies unless dismissed by order of Congress: that they be distinguished by the names of the first and second battalions of American Marines and that they be considered as part of the number which the continental Army before Boston is ordered to consist of."

Soon, Marine detachments were assigned to a number of American men-o'-war. In battle, Marines served as sharpshooters, and comprised boarding parties.

In December of 1776, a Marine battalion crossed the Delaware River with Washington's army. Serving both as infantrymen and artillerymen, they shared victories at Trenton and Princeton.

The first amphibious assault ever made by American Marines took place when Marines from the sloop Providence landed at New Providence in the Bahama Islands. They quickly captured it from the British, and for the first time the newly adopted Stars and Stripes was hoisted over a foreign stronghold.

SECOND COMING OF THE CORPS

With the beginning of an undeclared naval war with France, the U.S. government recognized the need for a strong Navy and Corps of Marines.

In 1794, Congress authorized a Navy and provided for Marines to serve on board ships. On April 30, 1798, Congress created the Navy Department, and, on July 11, President John Adams approved the bill creating the U.S. Marine Corps.

The same day the Marine Corps was "permatized," Congress allowed for the organization of the U.S. Marine Band, the only service band still authorized by an Act of Congress. It made its White House debut in January 1801 and became known as the "President's Own."

WAR OF 1812

Marines were involved in a number of sea and land battles and even some foreign intrigue between 1798 and 1812.

Marine detachments served on American vessels and again their musketry proved to be a decisive factor in naval engagements on Lake Erie under Perry, and in the victories of the Constitution and the Wasp.

THE CIVIL WAR AND AFTER

The mid-19th century saw Marines engaged in diverse roles. U.S. Marines were with Admiral Perry when he made his ceremonial landing in Japan in 1853. In 1856, at Canton, China, a 287-man naval landing force, spearheaded by 50 U.S. Marines, defeated more than 4,000 Chinese and destroyed four forts manned by elements hostile to American commerce.

The total strength of the U.S. Marine Corps was less than 2,000 when the Civil War began in earnest in April 1861; by the war's end, the Corps had increased to almost 3,900 officers and men.

FOREIGN DUTY

After the Civil War, Marines saw duty in such places as Egypt, Korea, Mexico, China, Cuba, the Arctic, Formosa, Uruguay, Argentina, Chile, Colombia, Panama, Haiti, Alaska and the waters off Greenland.

Duty at home during the post-Civil War years involved Marines in violent strife and catastrophes. They helped enforce revenue laws against illegal whiskey; maintained law and order in the cities of Portland, Maine, and Boston, Massachusetts, after both were swept by fire; protected property between Baltimore and Philadelphia during a strike of railroad workers.

SPANISH-AMERICAN WAR

On the night of Feb. 15, 1898, the battleship USS Maine was mysteriously blown up and sunk while anchored in Havana Harbor. Some 260 American lives, including 28 Marines, were lost. "Remember the Maine" became an American battle cry.

In July, when the famed "Rough Riders" were storming San Juan Hill, Marines were landing to secure Guantanamo Bay. In a daring action to cut off the Spaniards' only water supply, two companies of Marines were sent to capture Cuzo Wells.

SUPPORTING AMERICAN FOREIGN POLICY

In March 1899, the permanent strength of the Corps was increased to 211 officers and 6,000 enlisted men.

In the years preceding World War I, the Marines were to see service in the Boxer Rebellion in China, part of an international expeditionary force of U.S., Russian, British, Japanese, and German forces to protect the lives of the international community.

Shortly after the turn of the century, new weapons and equipment were introduced into the Corps and new tactics were developed around them. Improved artillery, more reliable machine guns, and automatic rifles provided increased firepower. The airplane also offered many possibilities and on May 22, 1912, the Marine Corps' first aviator, 1st Lt. Alfred A. Cunningham, reported to Annapolis, Md. for naval aviation duty.

THE GREAT WAR

In June 1917, the 5th Marine Regiment landed in France. By February 1918, enough Marines had arrived in France to form the Fourth Marine Brigade which became a part of the Army's 2d Infantry Division. By July 1918, this Army division was commanded by a Marine general, Brig. Gen. John A. Lejeune, marking the first time such a large force was led by a Marine.

The Marines distinguished themselves on many occasions during the war. Among the most famous was the battle for Belleau Wood, where in 20 days of successive fighting the Marine Brigade defeated part of two of Germany's most distinguished divisions. Because of their heroic actions in the battle, the Wood was renamed in honor of the Marines—"Bois de la Brigade de Marine," Marine Brigade Wood.

A POLICE FORCE

In 1927, Marine Major Ross E. Rowell led the first organized dive bombing attack in history and what appears to have been the first low-level attack against an organized enemy in support of friendly troops in a fight against Nicaraguan bandits. Aerial evacuation was used for the first time when 1st Lt. Christian F. Schilt flew wounded Marines out of the battle area. He earned the Medal of Honor for his daring rescue feats.

WORLD WAR II —THE MARINES' WAR

When war again came to the world, the Marines had perfected amphibious assault techniques and close air support tactics.

The Pacific Theater of Operations with its island-hopping campaigns found the Marines well prepared to seize and defend advance bases for the U.S. Navy.

Shortly after Pearl Harbor was attacked on Dec. 7, 1941, Marines on Guam, Midway, and Wake Island were also attacked. Guam was bitterly contested for several hours before it fell to a 6,000-man invasion force; Wake Island, because of its small size and largely open terrain, was able to hold out for two weeks. On Wake, scores of the enemy were killed attempting to land; two Japanese destroyers were sunk, seven were damaged; and uncounted numbers of enemy aircraft were downed by the Marine defenders.

The heroic defense of Guam and Wake Island set the stage for the

This pair of Marine A-4 "Skyhawk" attack jets, aboard the aircraft carrier USS John F. Kennedy, are lifted on a huge elevator to the carrier's flight deck to conduct launch and recovery training at sea.

Marines' tenacious tactics across the Pacific.

First, Guadalcanal was wrested from the enemy. Then, other islands fell despite valiant resistance by Japanese forces as Marine amphibious doctrine and close air support techniques more than proved their worth. Great amphibious battles were waged on the Gilbert and Marshall Islands, the Marianas, and the Palaus.

Among those islands was Iwo Jima, a small spit of volcanic ash. The fight for this island was one of the most bitterly contested battles in the Pacific campaigns. The world remembers this battle because a patrol of Marine riflemen made their way to the island's highest point, Mt. Suribachi, to plant the Stars and Stripes while the life-and-death struggle continued below. The Iwo Jima Monument, next to Arlington National Cemetery, commemorates this battle.

OKINAWA —THE LAST ISLAND

In contrast to many other Pacific island campaigns which were a total Marine responsibility, the mission of seizing Okinawa was assigned to the U.S. Tenth Army, which included several Marine Divisions. The 1st and 6th Marine Divisions were assigned assault missions. The 2d Marine Division was kept afloat in reserve.

On Easter Sunday, April 1, 1945, the initial waves went ashore unchallenged. Despite the easy landing, the battle turned into one of the fiercest of World War II.

When the Tenth Army commander was killed on June 18, a Marine aviator, Major General Roy S. Geiger, took command of the invasion force. Three days later, organized enemy resistance ended.

The majority of the 37,664 officers and 447,449 enlisted men and women—the peak strength of the Corps at war's end—longed to return to peacetime pursuits. Demobilization followed rapidly.

By 1947, the Corps was reduced to about 80,000 Marines. In this same year, the National Security Act of 1947 gave the Corps a specific role: "The Marine Corps shall be organized . . . to provide fleet marine forces of combined arms, together with supporting air components, for service with the fleet in the seizure or defense of advanced naval bases. . . ." That charter still stands nearly three decades later.

During World War II, more than 23,000 women had entered the Marines to relieve a like number of their male counterparts for combat duty. A few of these women remained on active duty. In 1948, they were made a permanent part of the Corps, and training facilities for enlisted women were established at Parris Island; officer training facilities were established at Quantico.

On June 25, 1950, the Russian-trained North Korean People's Army attacked the Republic of Korea. The United Nations branded the North Koreans as aggressors and requested U.S. military assistance for the South Korean republic.

On July 14, 1950, the 1st Provisional Marine Brigade sailed for Korea. It arrived at Pusan August 2 where South Korean and United Nations troops were holding a small perimeter. On three separate occasions, the brigade stopped enemy attacks and eliminated penetrations.

The 1st Marine Division reached Korean waters on September 14. The Joint Chiefs of Staff had said such a feat could not be accomplished before November or December. The task had been accomplished by mobilizing thousands of Marine Reservists.

When the Division launched an amphibious assault at Inchon on September 15, planes of the 1st Marine Aircraft Wing were overhead

to provide close air support. Approximately 24 hours after the assault began, the Marines had secured a beachhead and the initial phase of the landing was complete. By September 27, the U.S. flag was flying over Seoul.

After crossing the 38th Parallel which divided the two Koreas, UN Forces continued north. On October 25, Marine units landed in Wonsan harbor near the Chinese border. This campaign was to be one of the most demanding in the history of the Corps.

In early November, the Chinese Communists entered the fight, and engaged Marine units in fierce battles. Other allied units took the full force of the Chinese attack and were forced to give up territory.

Eventually, the Marines were surrounded. It was December and one of the most bitter winters in Korean history. A number of Chinese divisions attempted to wipe out the 1st Marine Division. But the Marines, with the aid of close air support, turned southward and slugged their way out of the Communist encirclement.

Fighting in Korea ended July 27, 1953, but the 1st Marine Division remained there until 1955, when it returned to Camp Pendleton, California, and the 1st Marine Aircraft Wing was ordered to Japan in 1956.

A READY STRIKING FORCE

Though the National Security Act of 1947 provided for the Corps' roles and missions, there was no specific document defining the Corps' strength to accomplish these tasks. In 1952, Congress amended the Act to specify, in part, that: "The United States Marine Corps . . . shall be so organized to include not less than three combat divisions and three air wings, and such other land combat, aviation, and other services as may be organic therein."

The amendment also gives the Commandant of the Marine Corps co-equal status with the other Joint Chiefs of Staff during consideration

of all matters directly concerning the Corps.

To meet this amended charter, the Corps increased its size. The 3d Marine Division moved to Okinawa in 1955, with one of its regiments—the 4th Marines—ordered to Hawaii to form the nucleus of what is now the 1st Marine Brigade.

Marines served aboard ships of the Sixth Fleet in the Mediterranean until the summer of 1958. Then, in July, U.S. Marines landed in the vicinity of Beirut and provided an outstanding example of the need to have ready forces available for employment in areas of potential trouble.

The Marines landed to support the legal government of Lebanon at its own request. In spite of the intense pressure of rebel bands, fifth columnists, and visible military threats in neighboring countries, there were no combat casualties, and an atmosphere of friendly assistance prevailed.

The late '50s and early '60s saw Marines responding to trouble spots in Laos, Thailand, Cuba, and Vietnam, where in 1962 the mounting threat of Communist forces dictated that American military assistance commands there be reinforced.

THE VIETNAM ERA

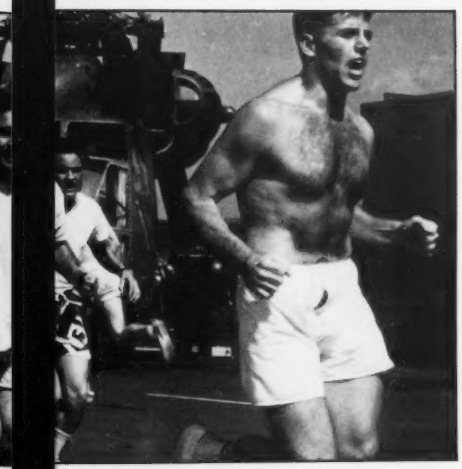
Though U.S. Marines had been involved in support and assistance roles for the Government of the Republic of Vietnam earlier, they were the first major U.S. ground forces committed to combat in that country. Elements of the 3d Marine Division, supported by the 1st Marine Aircraft Wing, began arriving at Da Nang on March 8, 1965.

These Marines were part of the III Marine Expeditionary Force which was activated May 6, 1965, and resesignated III Marine Amphibious Force. This force reached a peak strength of 85,500 Marines by the summer of 1968.

In 1966 the 1st Marine Division arrived and Marine aviation forces grew beyond normal wing strength. Marines were not only fighting Viet Cong guerrillas, they also were engaging large North Vietnamese regular army forces.

By 1968, the Commander, III Marine Amphibious Force had under his control U.S. Army units, and marines from the Republic of Korea, in addition to U.S. Marines. The III Marine Amphibious Force had become the largest field Marine command ever deployed. Some 150,000 U.S. and allied forces made up the command.

The classic battle of the war saw Marines recapture Vietnam's ancient Imperial City, Hue, after it had fallen



The physical and mental quality of Marines receives constant review and upgrading from Corps planners. Even at sea, Marines find time to maintain their physical conditioning programs.

during the 1968 Tet offensive. In bloody house-to-house street fighting—with limited air, artillery and naval gunfire support because the Allies felt the need to preserve as much of the city as possible—Marines engaged stubborn North Vietnamese forces, fighting them with little more than rifle and bayonet. The enemy had snatched the city from South Vietnamese defenders and were determined to make the American and allied forces destroy it, using its destruction as a propaganda tool to win South Vietnamese to the Communist cause.

Marines reclaimed the city after days of savage fighting. It was largely intact, with the majority of its destroyed portions having been done by the enemy as they lost ground.

In 1969 with the start of redeployment of U.S. and allied forces, Marine strength dwindled to 55,300. By December 1970, Marine forces had been reduced to 25,000 men, and the end of American involvement in the war was obviously in sight.

The Corps' strength had grown to just over 300,000 men and women during the Vietnam involvement. After the conflict, the Corps was reduced to its pre-conflict strength of 196,000.

BACK TO A FAMILIAR ROLE

In early 1975, Marines returned in force to Southeast Asia; not to do battle this time, but to participate in the evacuation of Americans endangered by Communist forces.

The first evacuation of Americans occurred in Cambodia when 3d Marine Division riflemen from a battalion landing team aboard ship were heli-lifted into Phnom Penh by 1st Marine Aircraft Wing helicopters. The force was from an afloat outfit dispatched from Okinawa.

The Marines landed at a soccer field near the American embassy and took out more than 250 Americans and foreign nationals. Four days later, the country fell to the Communists.

At the same time Marines were making the heli-borne evacuation from Cambodia, they were also involved in the largest humanitarian evacuation ever attempted. North Vietnamese forces in a massive offensive through South Vietnam drove refugees ahead of them into the south's coastal cities. U.S. Naval and Military Sealift Command ships arrived off many of the sea towns to transfer refugees to cities still in the hands of Saigon government forces. Marines were placed aboard those ships to help maintain order among the panicky civilians.

Marines were to aid in the final evacuation of Americans and 150,000 Vietnamese refugees before the country fell into complete Communist control. Saigon was the site of this massive evacuation which involved not only Marine riflemen, but the Marines assigned to the U.S. Embassy on a permanent basis as security guards.

While preparations for this final evacuation were underway, a U.S. merchant ship, the SS MAYAGUEZ was pirated from International waters by Khmer Rouge Cambodian forces. After an ultimatum from the U.S. President to release the ship and its crew went unheeded by the Communists, Marines were ordered to assault Koh Tang Island, a Cambodian possession where the ship was anchored and the crew believed held in captivity.

Landed by U.S. Air Force helicopters on the tiny island while U.S. aircraft and naval ships provided support, the Marines became involved in a fierce day-long battle. Other Marines boarded and recovered MAYAGUEZ unopposed. The Marine assault convinced the hostile forces that the U.S. would not tolerate piracy of its ships and the crew was released unharmed.

FUTURE BUILT ON THE PAST

The Marines celebrated their first 200 years of service on November 10, 1975. They celebrated the world over and pledged continued faithful service built on the traditions and history of the past.

Today, U.S. Marines continue to serve, as the Marines' Hymn chronicles, ". . . in every clime and place . . ." at a moment's notice. They know that their future is written by their actions of the present; and that present has, as its cornerstone, a past unmarred and unequalled by any military organization in the world today.

Lean, Competent and Versatile

The U.S. Coast Guard proudly joins in the celebration of the Nation's Bicentennial with the knowledge that it has served during all but 14 years of the country's two-century history. Even before the formation of this Service, some of the Coast Guard's first sailors served in the Continental forces. When the Revolution ended, the Continental Congress could no longer maintain the Navy and dismissed its personnel and sold the few remaining ships.

However, on August 4, 1790 Congress passed and George Washington signed a bill authorizing the construction of "ten boats" to guard the new Nation's coastline against smugglers.

It wasn't until 1798 that the U.S. Navy came into existence. Thus for nearly eight years the Coast Guard was the Nation's only Navy.

THE REVENUE CUTTER SERVICE

In the beginning, the Coast Guard was known as the Revenue Marine, and then it became the Revenue Cutter Service. Not until 1915 was the Service given its present name.

Now as we commemorate the United States' 200th birthday, the Coast Guard has a fleet of 250 ships, 160 aircraft and more than 2,000 small craft. Approximately 37,000 military and 6,000 civilian personnel serve in seagoing, aviation and shoreside assignments.

Search and rescue is undoubtedly the Coast Guard's best known mission. Last year the Coast Guard responded to 70,000 calls for assistance and saved 4,200 persons from death. More than 140,000 other persons were aided and $280 million worth of property was saved.

Some of the most dangerous rescue missions are carried out by boats less than 60 feet in length. One craft, a 44-foot self-bailing, self-righting motor surfboat can pound through 30-foot surf, roll

The U.S. Coast Guard has a fleet of 250 ships, 160 aircraft and more than 2,000 small craft. Fishermen (in bottom photo) are hoisted from their capsized boat into a Coast Guard helicopter. The above photo shows one of the craft used by the Coast Guard to protect the nation's coastline.

COAST GUARD

completely over, and still keep its engines running.

Strategically positioned Coast Guard aircraft share importantly in these humanitarian achievements too. Notable contributions to aviation history have been made by the Service.

While the Nation celebrates the Bicentennial, the U.S. Coast Guard Academy at New London, Conn., concurrently celebrates its centennial. This Academy, one of the five Federal Service academies, prepares future officers for Coast Guard service. Four years of stiff Academy training prepares young Americans to meet the difficult tasks that are thrust on this small but exciting Service. For the first time, women will join the Academy's corps of cadets in the summer of 1976.

COAST GUARD MISSIONS

As the world has grown more complex, so have the duties of the Service. Heavily influenced by such issues as energy, the environment, conservation of ocean resources and drug smuggling, the Coast Guard is adding new role upon new role to its traditional missions. A partial list of Coast Guard missions includes life saving, icebreaking, law enforcement, aids to navigation, marine environmental protection, port safety, recreational boating safety, marine law enforcement and commercial vessel safety. Few citizens realize the scope and nature of Coast Guard functions.

The number of missions of the Coast Guard has nearly doubled since World War II. New and even more challenging tasks may be around the corner because of possible expansion of United States jurisdiction over off-shore areas, the growth of the off-shore oil industry, and the building of deepwater ports to handle supertankers.

In the first years of our Nation, there was great concern about smuggling activities that threatened the economy of our young country. Today, a grave smuggling concern is narcotics. In cooperation with other Federal Agencies the Coast Guard last year alone seized about 58,000 pounds of marijuana and three tons of hashish with a combined value of more than $21 million.

Vessels and aircraft patrol the coasts of Alaska, the Pacific Northwest and New England enforcing treaties of the United States. They maintain surveillance of foreign fishing activities and play an ever-increasing role in the conservation of ocean resources. In 1975, the Coast Guard seized 21 foreign fishing vessels that were fishing illegally. Owners paid nearly $4.0 million in penalties. Two owners chose to forfeit their ships to the United States, rather than pay. The largest penalty, $600,000, was levied against a Japanese vessel for violation of the fisheries laws in Alaskan waters.

Recently, there has been a growing interest among the nations of the world in a 200-mile zone of

economic interests off our shores and the shores of other nations.

More than 150 nations are presently engaged in discussions concerning this matter. These discussions may well be one of the most complex and important multi-lateral negotiations ever undertaken.

An acceptable treaty from this conference will enhance world peace and will be in the interest of the United States as well as the rest of the world. The outcome is of incredible importance to the Coast Guard.

Should the conference adopt a 200-mile economic zone, the Coast Guard would have additional law enforcement responsibility in an area one third the size of the contiguous 48 states. The law enforcement responsibilities and other consequences of the deliberations will present the Coast Guard with a challenge unprecedented since World War II. Although the task will be enormous, the Coast Guard is already planning to meet the challenge. The formidable task will require intensive patrolling in areas of heavy activity, in addition to "show the flag" patrols in other areas. New ships, aircraft and manpower will be required.

AIDING OTHER NATIONS

While the Service prepares for ways to perform additional duties, there is a rapidly growing interest in the U.S. Coast Guard by other nations. There have been many inquiries about what and how missions are performed as well as questions about equipment, vessels, training, and organization. If imitation is the sincerest form of flattery, the United States is receiving praise from many areas in the world. The Service is being studied as a prototype for new Coast Guards, and some are even considering the conversion of more traditional national defense forces into Coast Guard-like services.

During 1975, the Coast Guard responded to requests from Iran, Jordan, Saudi Arabia and the Barbados, made through the U.S. State Department, to conduct surveys in their countries.

Making surveys for the governments of friendly nations is only one of the myriad duties of Coast Guardsmen. There are nearly 500 Coast Guardsmen stationed outside the United States. They perform such duties as operating radio navigational aids, handling matters concerned with the merchant marine, assisting the Navy in operational training and checking ship construction.

NEW VESSEL TRAFFIC SYSTEMS

Experience has shown that most vessel groundings and collisions are the result of some human error. The Coast Guard continues to commission and operate Vessel Traffic Services to help provide for vessel separation and navigational safety in coastal confluence and harbor entrance zones.

A Houston-Galveston vessel traffic system, for example, was commissioned in 1975 and during the first half year of operations, more than 70,000 vessel transits were handled by the vessel traffic center.

During the Bicentennial year and 1977, work will continue on three proposed vessel traffic services—New York, New Orleans and Prince William Sound, Alaska. This last system is for the Valdez terminus of the trans-Alaska oil pipeline from Prudhoe Bay. The three systems are scheduled to begin operations during 1977-1978.

Further navigational aid to the mariner (and aviator too) will be offered by the Coast Guard as work continues toward establishing LORAN C coverage of the Continental/Coastal Confluence Region by 1980. The first part of this two-phase plan calls for LORAN C coverage of the West Coast and the Gulf of Alaska. This 8 station network is scheduled to become operational in 1977.

Last year the President signed the Deep Water Port Act which assigned the Secretary of Transportation responsibility for authorizing and regulating the ownership, construction and operation of ports constructed in waters beyond the territorial limits. Two terminals probably will be operating in the Gulf of Mexico, perhaps as early as 1978.

Although deep water ports will be expensive to construct, they will give deep-draft tankers access to the U.S. and will result in economies of operation expected to reduce the Nation's energy bills.

In addition to helping in the development of safer and more economical ports for oil tankers, the Coast Guard seeks to protect the marine environment through stringent regulations. The Coast Guard has issued regulations designed to reduce pollution from seagoing U.S. tank vessels. Although applicable only to American ships engaged in domestic trade, the regulations help reduce the estimated 1,200,000 tons of oil that are accidentally or intentionally discharged annually from tankers throughout the world.

When pollution threatens the marine environment, Coast Guard forces respond to help reduce the damage and speed cleanup activities.

STRIKE FORCE TEAMS

Pollution control experts of the National Strike Force are among the world's foremost authorities in their field. Three Strike Force teams, each consisting of 18 officers and men, furnish equipment, communications support, advice, and assistance for the control of petroleum and hazardous substance pollution incidents.

In 1975, strike team members, at the request of the Government of Japan, flew to Singapore to help stem the flow of oil from the grounded tanker Showa Maru. The Chilean government utilized similar assistance when the tanker Metula went aground in the Strait of Magellan during 1974. The United States was reimbursed by the governments concerned.

In the years ahead, the Coast Guard fleet will be modernized by a long term addition of new 270-foot medium endurance cutters. The plan calls for constructing them over a 10-year span.

In designing this cutter, the Coast Guard considered the Navy's wartime needs. The wartime missions of Coast Guard cutters have been determined as: anti-submarine warfare, coastal surveillance, anti-surface and anti-air warfare. Most Coast Guard wartime missions can be carried out utilizing equipment presently used for Coast Guard peacetime missions.

In keeping with its role as polar expert and icebreaking service for the Nation, the Coast Guard seeks to meld new technology and highly skilled personnel. The icebreakers POLAR STAR and POLAR SEA are expected to open new vistas of polar exploration. These powerful cutters are designed to ram through 21-foot thick ice while shipboard computers and laboratories support oceanographic studies. The POLAR STAR will be the most powerful icebreaker in the free world.

Last fall the Coast Guard again demonstrated its polar expertise when it convoyed barges laden with high priority oil industry equipment to Alaska's Prudhoe Bay. Three Coast Guard cutters and their helicopters, aided by a favorable shift of arctic wind, escorted 15 barges around Point Barrow to the North Slope region with more than $500 million worth of equipment, including assembled seven-story modular buildings. Unit citations were awarded to the three cutters—STORIS, CITRUS and BURTON ISLAND.

Meanwhile, Coast Guard search and rescue responses are expected to increase at a rate of nearly seven percent annually through the next 10 years.

As a further commitment to its search and rescue mission, the Coast Guard installed a coastal network of 196 VHF-FM stations to monitor distress calls and provide reliable VHF-FM communications over a 20-mile wide coastal zone.

All Coast Guard helicopters have been modified to use high intensity lights to assist in identifying night-time search targets without incurring the risks involved with parachute flares. The Service also is in the process of developing a wide-area illumination system to give improved night search capability. Desired is a wide-angle lighting system which will illuminate an area one-half mile wide from each side of a helicopter flying at 500 feet.

REDUCING BOATING MISHAPS

The most recent boating accident statistics show 1,446 fatalities or a rate of 16.9 deaths per 100,000 boats in use. During the past 15 years, the rate of deaths related to boating accidents have varied from the recent low of 16.9 to a high of 21.4 which occurred in 1965. To reduce this loss of life, flotation bags that can help support damaged boats are becoming part of the standard equipment for Coast Guard search and rescue units.

New boat flotation regulations, effective for the 1979 model year, will require boats to support 50 percent of the passengers and remain level when swamped. Passengers, (even though partially submerged in water) will be able to remain in the boat. The dangers of panic and exposure will be lessened and an upright boat will offer a better target for rescuers.

Proud of the service rendered to the Nation, the Coast Guard is lean, highly competent and versatile in ship, boat and aircraft operations, maritime law, ocean engineering, naval architecture and many other disciplines. In short, the Service is performing a myriad of duties just as the Nation has grown to expect.

Many East Coast ports will get a first-hand look at the unique Coast Guard training ship EAGLE this summer. The EAGLE, a three-masted sailing bark, is used by the Academy in the summer months to prepare cadets for future service. This magnificent sailing ship is scheduled to be the host ship of the multi-nation OPERATION SAIL program to be held in New York harbor during the fourth of July weekend. The EAGLE is also scheduled to visit:

Philadelphia	May 21—24
Washington, D.C.	May 28—31
New London	June 3—5
Bermuda	June 18—20
Newport	June 26—July 1
Baltimore	July 11—14
Jacksonville	July 23—26
Miami	July 30—August 2
Charleston	August 6—9
New Bedford	August 13—16
New London	August 20

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